

Original Article

# Mobile Phone Features and Physical Behavior based on Generation in Public Space

## - Case study: Losari Beach Platform in Makassar City, Indonesia -

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Attitudes and human behavior are influenced by technological developments and affect the typology of urban space. Urban public spaces are used by visitors who come from various places with different generation. The objectives of this research are to identify which generation using mobile phone is dominant and to describe relation between mobile phone features and physical behavior in public space based on generation. Losari beach platform is one of the most crowded public spaces and the icon of Makassar, Indonesia. The results are the most dominant visitors who use mobile phone is youth than others and the mobile phone features behavior in public space tends to be different according to the experience of each generation, meanwhile mobile phone physical behavior tends to be similar in calling, SMS, music and Internet feature but tends to be different in camera feature.

**Keywords:** *Mobile Phone Features Behavior, Mobile Phone Physical Behavior, Public Space, Losari Beach Platform*

### 1. Introduction

#### 1.1 Background

The development of science and technology can influence the attitude and behavior of people. Advances in new media and telecommunications technologies are changing patterns of social interaction and communications (Horton and Wohl, 1956; Meyrowitz, 1985<sup>7)</sup>. Social relationships are no longer restricted to physical places but are distributed through space (Drucker and Gumpert, 1991<sup>7)</sup>. New media technologies facilitate the shift of social interaction from private to public places, and conversely from public to private<sup>7)</sup>.

Mobile phone is one of the most important information and communication technology devices and the characteristic of modern urban society, which have a high mobility. Mobile phone is often used in public space. It is one of the most popular tools/devices that people use to interact and communicate in public space. Mobile phone is no longer considered a luxury item because all societies have to have it. Almost all of the people from any generation are using mobile phone in public spaces in any country.

Public space is three-dimensional (3D) space in architecture and urban space that can accommodate the need for meeting between people to communicate

and interact with each other. It is a space which anyone has the same right to access and do their interest and public activities, no need to feel inferior, and free access. Public space is the area or public land where people can perform functional activities or activities of a public ritual that can bind a community, whether its routine activities of daily or periodic events<sup>2)</sup>. Public space as social and cultural functions describes the expression of local culture, a means of communication, interaction and a place for play and recreation.

Development of architecture and urban design is so complicated that the human behavior should be considered in the process of build environment design. An architect and urban designer should have responsibility to design comfortable public space for all visitors. Hence the behavior of visitors is the important aspect considered in the process of public space design. The visitors using mobile phone are very important elements in public space. Almost all of them carry and use mobile phone in public space. Public space is an element of architecture and urban design while mobile phone is an element of information and technology communication. Their mobile phone behavior cannot be separated from the existence of public space itself. So it can be said that the human attitudes and behavior are

influenced by technological developments and affect the typology of urban space.

The visitors of public space come from various places with the different age generation, gender, educational level, occupation and so on. This study is focused on mobile phone behavior in public space base on generation. Generation describes the different mobile phone behavior from their experience in public space. For instance old generation, they have spent much time in public space, they have much experience about anything in public space but new for mobile phone usage in public space. Middle age generation, they have spent much time with mobile phone in public space and a long experience in public space but the mobile phone that they use had limited features. Young generation, from the beginning have already used mobile phone in public space. They are generation with various mobile phone features in public space. The interesting point from generation approach is to describe the similarity and the difference of experience of using mobile phone in public space. Based on their experience, it can be identified mobile phone features and mobile phone physical behavior with their age generation in public space.

The previous study stated that the popular use of the mobile phone in public places gave rise to complaints. The complaints of respondents were wide in range. They fell into three groups: (1) "loud talk and the ringing," (2) "discourtesy", and (3) "perceived consequences of improper uses". What to do about the inappropriate uses of the cell phone? Respondents were asked to express their views on given suggestions ranging from non-intervention to penalty to address the common complaints. Specifically, the suggestions can be described as (1) "doing nothing", (2) "self-discipline", (3) "posting public notices", and (4) "imposing penalty and introducing regulations"<sup>7)</sup>. It means there are uncomfortable among the use of mobile phone in public spaces. The wide range of complaints associated with the mobile phone use in public space should be concerned for architect and urban designer as one of involved in the design of public space.

The case study of this research is held on Losari beach platform that is icon of Makassar City, Indonesia. Losari beach platform is the one of the most crowded public spaces where is visited by the community of all age generation. Various social-cultural activities,

interactions and communication using mobile phone are done on the Losari beach platform. The communities of Makassar utilize Losari beach platform as a place for gathering and socializing. The Losari beach is equipped with physical elements such as parking, bench, stage, sculpture, toilet, tress and so on to support visitor activities.

The result of this research is the relation between mobile phone features behavior and physical behavior in public space. This is the preliminary study to recognize the needs of physical elements in designing comfortable public space based on generation. Physical elements in designing comfortable public space are related with design implication.

### **1.2 Research Objectives**

The hypothesis is there are different relation between mobile phone feature and physical behavior in public space according to the generation.

Research objectives are:

1. To identify the generation which is dominant using mobile phone in public space.
2. To describe relation between mobile phone features and physical behavior in public space based on generation.

### **1.3 Work Definition**

The theme of this research is the mobile phone features and physical behavior based on generation in public space with the case study on Losari Beach Platform in Makassar City, Indonesia. Mobile phone features are the basic function of mobile phone includes: calling, SMS/MMS, music, Internet and camera. Mobile phone physical behaviors are the basic pattern of human activity includes: walking, standing, sitting, and leaning. Generation is all of the people born and living at about the same time.

## **2. Methodology**

Data collection is done by observation and questionnaires. The questionnaire is divided into face sheet, mobile phone features behavior, mobile phone physical behavior, and time consisting of several variables.

1. **Face sheet:** Visitor's characteristics regarding to age generation and gender.
2. **Mobile phone features behavior:** regarding to mobile phone feature usually use, important feature, headset

use level, tools for taking photo and mobile phone type.

3. **Mobile phone physical behavior:** regarding to physical behavior in calling, SMS/MMS, music, Internet and camera feature. Mobile Phone physical behaviors are the basic pattern of human activity includes: walking, standing, sitting, and leaning.

4. **Time:** regarding to visiting duration in Losari beach platform: less than 1 hour, 1 hour, 2 hours and more than 2 hours.

Age classification is varied between countries and over time, reflecting in many instances the social class differences or functional ability related to the workforce, but more often than not was a reflection of the current political and economic situation (WHO in Health statistics and health information systems project). For this study age classification is divided into kids less than 10 year olds, teenager 10 - 19 year olds, youth 20 - 29 year olds, adult 30 - 39 year olds, old 40 - 49 year olds and older more than 50 year olds.

The number of questionnaires is distributed at each sessions is 30 respondents. The questionnaire was conducted during one week from Saturday-Friday in October 22nd - October 28th 2011. Distributing questionnaire was divided in three sessions; session 1 from 06:00 - 08:00; session 2 from 11:00 - 13:00; session 3 from 17:00 - 19:00. The number of questionnaires is

distributed 630 respondents but returned 628 respondents. The questionnaire is not distributed for kids less than 10 year olds. It was done for keep accuracy of the data. Thus, in the analysis kids data are neglected. Questionnaires were distributed at three points on the left side, right side and center of Losari beach platform.

### 3. Overview of Site

#### 3.1 Makassar City

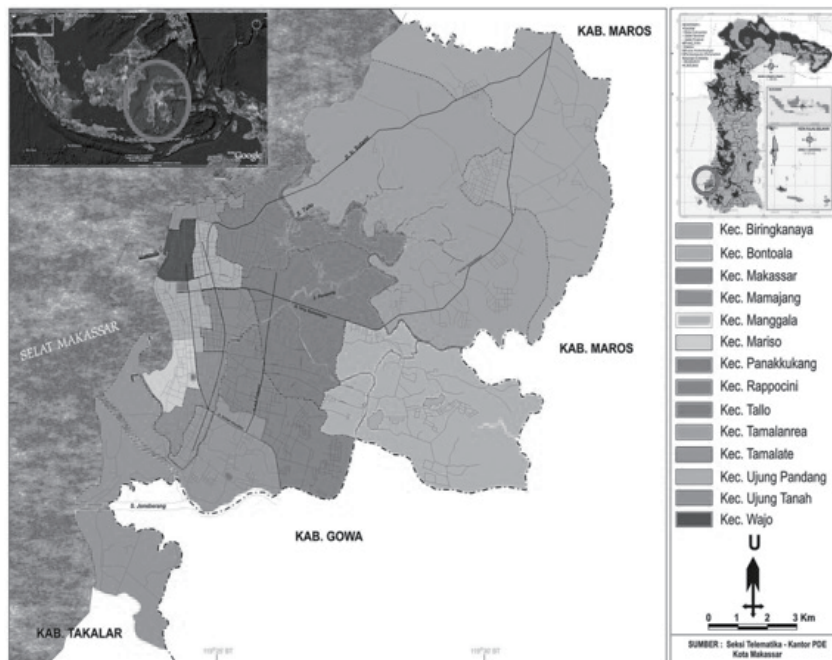
Makassar City is the capital of South Sulawesi, Indonesia located between 119°24'17"38" East Longitude and 5°8'6"19" South Latitude (Fig.1). Makassar bounded by Maros Regency at the North Side and at the East Side, Gowa Regency at the south Side, and Makassar Strait at the West Side. The area of Makassar is 175.77 square km which include 14 district.

Total population of Makassar in 2009 is 1,272,349

**Table 1 The Number of Makassar Population in 2009 from 10 Year Olds – 50+ Year Olds**

Age Group	Male	Female	Total
Teenager (10 - 19)	121,773	128,429	250,202
Youth (20 - 29)	123,078	158,636	281,714
Adult (30 - 39)	101,012	108,865	209,877
Old (40 - 49)	62,743	58,690	121,433
Older (50 +)	70,861	84,991	155,852
<b>Total</b>	<b>479,467</b>	<b>539,611</b>	<b>1,019,078</b>

Source: Makassar Central Board of Statistic 2010



**Fig. 1 Map of Makassar City**

people with the details 610,270 males and 662,079 females. The composition of population by sex can showed with sex ratio. Sex ratio of Makassar population in 2009 is 92.17 percent, it means that for each 100 population of females be found 92 population of males.

The number of Makassar population 10 years old - more than 50 years old can be seen in Table1. Table1 shows that the dominant population of Makassar is youth 20-29 year olds then teenager 10-19 year olds, adult 30-39 year olds, older more than 50 year olds and old 40-49 year olds. Female dominated in every age generation and overall the number of female is more than male.

There are many public spaces in Makassar. Public space where is most frequently visited by public is Losari beach platform. Losari beach is one of the icons of Makassar even South Sulawesi.

### 3.2 Characteristic of Losari Beach Platform

Losari beach platform was developed as a tourist area. The location of Losari beach platform is very strategic in the West of Makassar in Losari Village, Ujungpandang District. Losari beach consists of green open space with an area of 0.04 ha and non-green open space 0.9 ha. Green

open space is located in a park and green line on the side of the road. Visitors can enjoy the beautiful sunset in the afternoon. Losari beach has a unique and fascinating feature. The visitors are also able to enjoy a variety of fresh seafood. Losari beach platform layout is on Fig.2.

Physical character of public space on Losari beach platform is equipped with various supporting facilities such as pier, square, sculpture, bench, trees, parking, pedestrian, toilets, garden lights, children's playground, and street vendors. The pier is located on the western at the end of platform. The pier is used by visitors to see the sunset and place for rides a banana boat. Parking facility is located on the eastern side of the platform. Parking facilities are provided for bicycle, motorbike, and car. The parking area is quite spacious and can accommodate the number of visitors on weekday. If there are some events on holiday the parking area is full. So visitors utilize the road as a parking area. Pedestrian area is located on a side of *Penghibur* street. It is bounded by wall, which is served as a place to sit and the other side is bounded by green belt. The platform is also used as a pedestrian. Sitting area is divided into two parts, sitting area in the platform

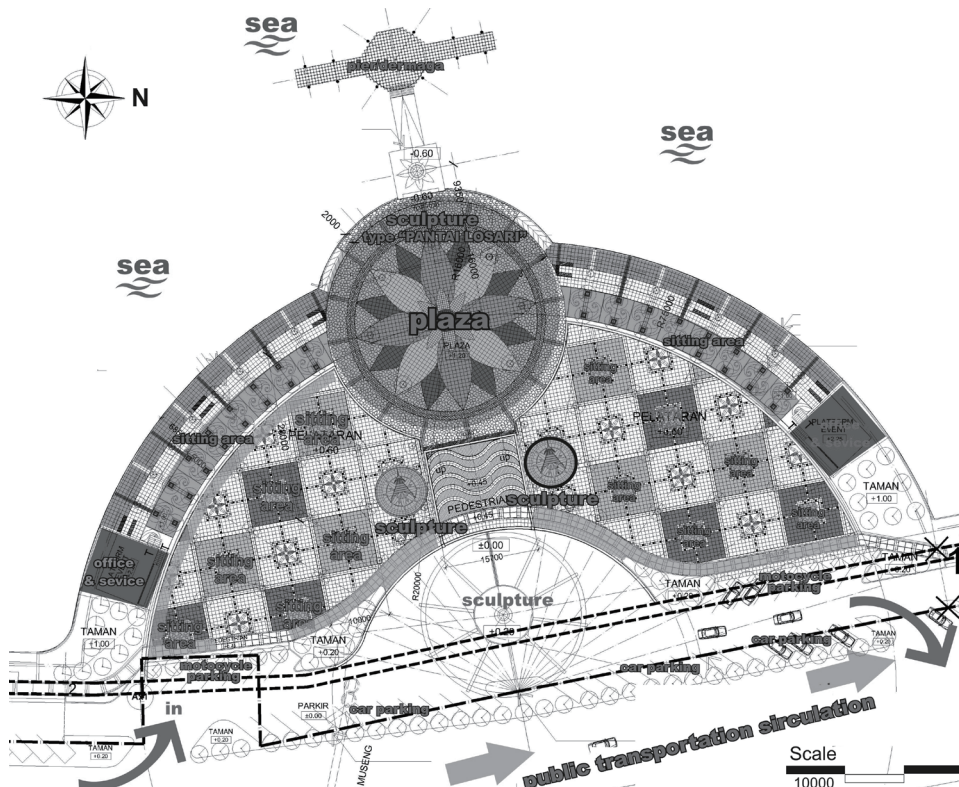


Fig. 3 Lay Out of Losari Beach Platform

Sources: Modified from Losari beach Reclamation Project



and sitting area at the edge of Losari beach platform. There are four sculptures in the Losari beach platform. One is located in the western with the letter of “LOSARI BEACH”. Two are located in the middle of platform, one in the left side and one in the right side. And last one is located in parking area with the shape of *phinisi* boat – the traditional boat of Makassar. Garden light is served as a means of illumination at night. Visitors who want to eat and drink something can easily get them because there are some street vendors in some parts of Losari beach platform.

Activities performed in Losari beach platform are varied such as tourism, entertainment, performance, socio-cultural festival, sport, shopping, eat and drink, take a photo, calling, reading, meet a friends, fishing, riding a bike etc. Activities tend to be different between weekday

and holyday (Fig.3). Among all activities, the use of mobile phones is interesting to be observed. Visitors use mobile phones not only for telephone and other communication functions but also use it as the existing cameras facilities on mobile phones to take a picture.

#### 4. Characteristic of Respondent

The analysis of characteristic of respondent is consisted of age generation, gender, mobile phone possession and visiting duration in Losari beach platform. The amount of visitor who has returned the questionnaire in all sessions are 628 respondents, the details are teenager 10 - 19 year olds 71 respondents, youth 20 - 29 year olds 300 respondents, adult 30 - 39 year olds 151 respondents, old 40 - 49 year olds 82 respondents and the older more than 50 year olds 24 respondents. This indicates that youth visitors are more



Fig. 3 Various Activities in Losari Beach Platform

Table 2 The Characteristic of Respondent in Losari Beach Platform

Session	Age	Gender			MP Possession		Visiting Duration			
		Male	Female	Total	Yes	No	> 1 hour	1 hour	2 hours	2 hour <
Session 1	10-19 (Teenager)	15	13	28	26	2	13	11	3	1
	20-29 (Youth)	37	44	81	81	0	28	44	6	3
	30-39 (Adult)	35	25	60	60	0	19	21	20	0
	40-49 (Old)	15	5	20	20	0	7	11	2	0
	50 < (Older)	11	8	19	15	4	12	7	0	0
Session 2	10-19 (Teenager)	24	12	36	36	0	25	11	0	0
	20-29 (Youth)	34	49	83	83	0	46	31	6	0
	30-39 (Adult)	22	27	49	49	0	19	23	7	0
	40-49 (Old)	31	8	39	39	0	18	10	11	0
	50 < (Older)	2	1	3	3	0	3	0	0	0
Session 3	10-19 (Teenager)	4	3	7	7	0	3	1	0	3
	20-29 (Youth)	68	68	136	136	0	12	23	71	30
	30-39 (Adult)	29	13	42	42	0	1	12	29	0
	40-49 (Old)	8	15	23	23	0	2	13	8	0
	50 < (Older)	1	1	2	2	0	2	0	0	0
Total		336	292	628	622	6	210	218	163	37

dominant than another age generation of visitors. Mobile phone possession is counted around 99%. There are only 6 respondents who do not have a mobile phone, 2 teenagers and 4 older in the first session. The ratio of respondent characteristic analysis can be seen in Table 2.

The number of teenager who use mobile phone visiting the Losari beach is dominant in session 2 as much as 36 respondents. The numbers of male teenager 43 respondents while female teenager 28 respondents. Session 1 for teenager is the time for school. The visiting duration in Losari beach platform is average less than 1 hour. Session 2 is lunchtime for student from 12:00 - 13:00. The traditional social culture in Makassar teenagers is still constrained to leave the house alone to access the public space at night.

The number of youth who use mobile phone visiting the Losari beach is dominant in session 3 as much as 136 respondents. Female dominated for youth in session 1 and 2. The visiting duration for youth in Losari beach platform is average 1 hour for all sessions.

The number of adult who use mobile phone visiting the Losari beach platform is dominant in session 1 as much as 60 respondents. Male dominated for adult in session 1 and 3 while female dominated for adult in session 2. The visiting duration for adult in Losari beach platform is 1 hour in session 1 and 2, while session 3 is average 2 hours.

The number of old who use mobile phone visiting Losari beach platform is dominant in session 2 as much as 39 respondents. Male dominated for old in session 1 and 2 while female dominated in session 3. The visiting duration for old in Losari beach platform is 1 hour.

The number of older more than 50 year olds who use mobile phone visiting Losari beach platform is dominant in session 1 as much as 19 respondents. Male dominated for older in session 1 and 2. The visiting duration for older to visit Losari beach platform is less than 1 hour.

### 5. Mobile Phone Features Behavior in Losari Beach Platform

Analysis of mobile phone features behavior discusses the mobile phone feature usually use, important feature, mobile phone type, and tools for taking photo. Mobile phone feature that used in this study is a common feature that is calling, SMS/MMS, music, Internet and camera features. The ratio of mobile phone features behavior in Losari beach platform can be seen in Table 3.

The mobile phone feature usually use for teenager is music feature as much as 26 respondents at all sessions. The important feature for teenager is camera as much as 46 respondents at all sessions. They always use camera phone for taking photo and use conventional mobile phone.

The mobile phone feature usually use for youth is camera feature as much as 147 respondents at all sessions. The important mobile phone feature for youth is camera feature as much as 225 respondents at all sessions. The most of youth use camera phone for taking photo. Mobile phone type usually use for youth is conventional phone 177 respondents and smart phone 123 respondents at all sessions.

The mobile phone feature usually use for adult is calling feature as much as 61 respondents at all sessions. The most important feature for adult is camera feature as much as 47 respondents at all sessions. There are 90 adult

**Table 3 The Ratio of Mobile Phone Features Behavior in Losari Beach Platform**

Session	Age	MP Feature Usually Use					MP Important Feature					MP Type		Taking Photo Tools	
		Calling	SMS	Music	Internet	Camera	Calling	SMS	Music	Internet	Camera	Conventional	Smart	Camera Phone	Camera
Session 1	10-19 (Teenager)	0	4	12	0	10	2	1	4	3	16	26	0	26	0
	20-29 (Youth)	1	31	17	2	30	2	5	11	2	61	55	26	72	9
	30-39 (Adult)	15	0	2	17	26	8	1	2	10	42	3	57	37	23
	40-49 (Old)	8	1	0	4	7	8	0	0	1	11	6	14	9	11
	50 < (Older)	10	2	0	0	7	6	0	0	0	9	10	5	13	2
Session 2	10-19 (Teenager)	3	16	11	1	5	6	3	4	0	23	31	5	34	2
	20-29 (Youth)	9	21	19	0	34	2	0	7	1	73	62	21	77	6
	30-39 (Adult)	24	0	0	14	11	7	0	11	0	31	10	34	24	25
	40-49 (Old)	27	9	0	0	6	4	0	0	12	23	22	17	27	12
	50 < (Older)	3	0	0	0	0	3	0	0	0	0	3	0	3	0
Session 3	10-19 (Teenager)	0	1	3	0	3	0	0	0	0	7	4	3	7	0
	20-29 (Youth)	17	20	15	1	83	20	10	14	1	91	60	76	118	18
	30-39 (Adult)	22	0	2	8	10	19	0	3	0	20	9	33	29	13
	40-49 (Old)	19	0	0	0	4	1	0	0	0	22	9	14	15	8
	50 < (Older)	2	0	1	0	0	1	1	0	0	0	2	0	2	0
Total		160	105	82	47	236	89	21	56	30	429	312	305	493	129

use camera phone and 61 use general camera for taking photo at all sessions. The most commonly mobile phone type that they use is smart phone.

The mobile phone feature usually use for old is calling feature as much as 54 respondents at all sessions. The important mobile phone feature for old is camera feature as much as 56 respondents at all sessions. The old use camera phone more than general camera. Mobile phone type they always use is smart phone.

The mobile phone feature usually use for older is calling as much as 15 respondents at all sessions. The important mobile phone feature for older is calling feature as much as 10 respondents at all sessions. Most of them use the conventional phone.

## 6. Mobile Phone Physical Behavior in Losari Beach Platform

Analysis of mobile phone physical behavior in Losari beach platform describes about the basic pattern of human activity in calling, SMS/MMS, music, Internet, and camera, with a posture that includes: walking, standing, sitting, and leaning. The ratio of mobile phone physical behavior in Losari beach platform can be seen in Table 4.

Teenager mobile phone physical behavior in calling tends to walking 25 respondents at all sessions. Teenager mobile phone physical behavior in SMS, music and internet tends to sitting. Each, SMS 63 respondents, music 46 respondents and internet 56 respondents at all sessions. Teenager mobile phone physical in camera tends to standing 43 respondents at all sessions.

Youth mobile phone physical behavior in calling, sms, music and internet tends to sitting, calling 128 respondents, SMS 225 respondents, music 200 respondents and internet 262 respondents at all sessions. Youth mobile phone physical in camera is standing 197

respondents at all sessions.

Adult mobile phone physical behavior in calling is walking 59 respondents at all sessions. Adult mobile phone physical behavior in SMS, music and internet is sitting, each SMS 131 respondents, music 99 respondents and internet 141 respondents at all sessions. Adult mobile phone physical in camera is standing 98 respondents at all sessions.

Old mobile phone physical behavior in calling is walking 36 respondents at all sessions. Old mobile phone physical behavior in SMS, music, internet and camera tends to sitting, each SMS 36 respondents, music 58 respondents, internet 76 respondents and camera 38 respondents at all sessions.

Old mobile phone physical behavior in calling, sms, music, internet and camera tends to sitting at all sessions, each calling 15 respondents, SMS 20 respondents, music 20 respondents, internet 20 respondents and camera 12 respondents at all sessions.

## 7. Discussion: The Characteristic of Mobile Phone Physical and Features Behavior in Public Space

The characteristics of mobile phone behavior in public space describe in Table 5.

### - Teenager (11 – 19 Year Olds)

Each session is dominated by male which the duration of visiting less than 1 hour. The most visiting to Losari beach platform by teenager is in session 2. The most features usually use is a music features at all sessions. Overall, teenager is varies in mobile phone features. The important feature they often use is the camera. They use camera phone for taking photo. The type of mobile phone they use is the conventional mobile phone. Teenager mobile phone physical behavior in calling tends to walking in session 1, leaning in session 2 and sitting in session 3. They tend

**Table 4 The Ratio of Mobile Phone Physical Behavior in Losari Beach Platform**

Session	Age	Physical Behavior in Calling				Physical Behavior in SMS				Physical Behavior in Music				Physical Behavior in Internet				Physical Behavior in Camera			
		Standing	Sitting	Walking	Leaning	Standing	Sitting	Walking	Leaning	Standing	Sitting	Walking	Leaning	Standing	Sitting	Walking	Leaning	Standing	Sitting	Walking	Leaning
Session 1	10-19 (Teenager)	1	10	15	0	0	23	1	2	2	11	10	3	3	23	0	0	14	5	7	0
	20-29 (Youth)	15	27	35	4	8	52	4	17	4	24	42	11	2	76	1	2	54	9	8	10
	30-39 (Adult)	14	14	31	0	5	48	7	0	4	32	24	0	5	53	2	0	47	4	4	5
	40-49 (Old)	2	13	5	0	4	16	0	0	0	18	2	0	0	18	2	0	9	8	3	0
	50 < (Older)	2	13	0	0	0	15	0	0	0	15	0	0	0	15	0	0	7	7	0	1
Session 2	10-19 (Teenager)	10	5	10	11	2	33	0	0	2	28	6	0	0	26	0	10	23	4	7	2
	20-29 (Youth)	34	17	29	3	17	64	1	1	1	74	6	2	1	78	2	2	41	7	20	18
	30-39 (Adult)	5	17	27	0	5	43	0	1	0	28	21	0	0	48	1	0	21	21	3	4
	40-49 (Old)	7	10	22	0	8	28	3	0	0	29	10	0	3	36	0	0	10	20	1	8
	50 < (Older)	0	3	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0	3	0	0
Session 3	10-19 (Teenager)	1	3	0	3	0	7	0	0	0	7	0	0	0	7	0	0	6	0	0	1
	20-29 (Youth)	30	84	11	11	13	109	3	11	3	102	3	28	3	108	0	25	102	21	3	13
	30-39 (Adult)	15	26	1	0	2	40	0	0	0	38	1	3	0	40	0	2	30	10	2	0
	40-49 (Old)	4	10	9	0	3	19	0	1	0	11	11	1	0	22	0	1	9	10	0	4
	50 < (Older)	0	2	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	2	0	0
Total		140	254	195	32	67	502	19	33	16	422	136	48	17	555	8	42	373	131	58	66

to sitting in SMS, music and internet feature and tend to standing in camera.

#### - Youth (20 – 29 Year Olds)

Youth is dominant generation use mobile phone in Losari beach platform. Female dominates each session. This is the distinguish character of youth. The most frequently and important mobile phone feature they are used on every session is the camera feature. There are a few of them who frequently use the SMS in session 1 and 2. They use camera phone to taking pictures in Losari beach platform. The type of mobile phone they usually use is the conventional mobile phones except in the third session there are some who use smart phones. Youth mobile phone physical behavior in calling tends to walking in session 1, standing in session 2 and sitting in session 3. They tend to sitting in SMS, music and internet feature in all session but tend to standing in camera feature.

#### - Adult (30 – 39 Year Olds)

The male dominates each session for adult. Adult most

often use calling and camera feature at each session. The most important mobile phone feature for adult is camera. They are taking a photo using a camera phone. The most of them use the smart phone. Adult mobile phone physical behavior in calling tends to walking in session 1 and 2, and sitting in session 3. They tend to sitting in SMS, music and internet at all session but tend to standing in camera feature.

#### - Old (40 – 49 Year Olds)

The female dominates in session 3 but male dominates in session 1 and 2. The mobile phone feature often used by the old is calling feature. Most of them are also using the smart phones except the second session there are some who use the conventional phone. The mobile phone physical behavior in calling tends to sitting in session 1 and 3, and walking in session 2. They tend to sitting in SMS, music, internet and camera at all session.

#### - Older (50+ Year Old)

The male dominates each session for older. The most

**Table 5 Characteristic of Mobile Phone Behavior Based on Generation in Losari Beach Platform**

Variable	Teenager 10-19 years	Youth 20-29 years	Adult 30-39 years	Old 40-49	Older 50 +	Characteristics
Time (Session)	Session 2	Session 3	Session 1	Session 2	Session 1	Teenager and Old = Session 2. Adult and Older = Session 1. Youth = Session 3.
Gender	Male	Female	Male	Male	Male	Teenager, Adult, Old and Older = Male. Youth = Female.
Visiting Duration	> 1 hour	1 hour	1 - 2 hours	1 hour	> 1 hour	Teenager and Older = > 1 hour. Youth and Old = 1 hour. Adult = 1 - 2 hours.
Feature that usually use	Music, SMS, Camera	SMS, Camera	Calling	Calling	Calling	Teenager = varies features. Youth = SMS and Camera. Adult, Old and Older = Calling.
Important Features	Camera	Camera	Camera	Camera	Calling	Teenager, Youth, Adult and Old = Camera. Older = Calling.
Taking Photo Tools	Camera Phone	Camera Phone	Camera Phone	Camera Phone	Camera Phone	All generation = camera phone
Mobile Phone Type	Conventional	Conventional	Smart	Smart	Conventional	Teenager, Youth, Older = Conventional Mobile Phone. Adult, Old = Smart Phone.
MP Physical Behavior in Calling	Walking, Leaning, Sitting	Walking, Standing, Sitting	Walking, Sitting	Sitting, Walking	Sitting	All generation has variative MP physical behavior in Calling.
MP Physical Behavior in SMS	Sitting	Sitting	Sitting	Sitting	Sitting	All generation tends to sitting in SMS
MP Physical Behavior in Music	Sitting	Sitting	Sitting	Sitting	Sitting	All generation tends to sitting in Music
MP Physical Behavior in Internet	Sitting	Sitting	Sitting	Sitting	Sitting	All generation tends to sitting in Internet
MP Physical Behavior in Camera	Standing	Standing	Standing	Sitting	Sitting	Teenager, Youth, Adult = Standing. Old and Older = Sitting



frequent mobile phone feature and important often used is the calling feature. All of the older respondent use conventional phone. The Mobile phone physical behavior for older in calling, SMS, music, internet and camera feature tends to sitting in all session.

## 8. Findings and Conclusion

1. The most dominate visitors in Losari beach platform who use mobile phone based on age generation is youth than the adult, old, teenager and older. Meanwhile the most population of Makassar is dominated by youth than teenager, adult, older, and old. The number of male visitor who use mobile phone is more than female in Losari beach platform. The number of female is more then male population in Makassar.

It can be concluded that there are two contradictory things. First, the sequences of the most dominant visitors who using mobile phone based on generation in Losari beach platform is different with the sequences of the most population in Makassar City. Second, the sequences of gender dominated in Losari beach platform is different with the sequence of gender ratio of Makassar City. The comparison can be seen in Table 6.

Mark Francis in "Changing Values in Public Spaces" was notes: Truly public spaces fill the needs of many different kinds of people, provide opportunities for discovery and challenge, and actively encourage user manipulation, appropriation and transformation. Many cities have now developed specific guidelines to ensure that public open spaces are well used. As William Whyte points out, public-space guidelines should provide for adequate "sittable" space, programmed events and food. Yet most city guidelines stop here. A further dimension

must be that a space provide for user diversity. Public lanscape should be meeting grounds for groups of various ages and background. Unfortunately, many public spaces are not only uninviting to the elderly, teenagers and children, but are perceived as perilous for women. Successful public spaces provide for basic human needs.

According to that facts, the human needs based on age generation and gender is important to provide comfortable public space. One of the tasks of an architect is to provide satisfaction and comfort to the user in the design.

This means that an architect and urban designer in designing public space should be make scale of priority for the needs of the dominant generation in using mobile phone in public space. In this case the order of priority is a youth, adult, old and older. Similarly in case of gender, it should be considered the dominant gender who use mobile phone in public space.

2. Every age generation has its own mobile phone features and physical behavior characteristics in public space. Mobile phone features behavior in public space tends to be different based on the experience of every generation using mobile phone. Meanwhile, mobile phone physical behavior in public space tends to be similar in calling, SMS, music and Internet feature with sitting but tends to be different in camera feature. Teenager, youth, adult tend to be standing while old and older tend to be sitting in camera feature.

The use of mobile phone in public space gave rise to complain<sup>6</sup>. The complaints divided into three groups: (1) loud talk and ringing, (2) discourtesy, and (3) perceived consequences of improper uses. When examined the complaints related to the both of mobile phone feature behavior and mobile phone physical behavior in public

**Table 6 The Comparison of Age Generation Dominant between Makassar City Population and the Losari Beach Platform Visitors Who Use Mobile Phone**

Domination	Makassar City			Losari Beach Platform Visitors Who Use Mobile Phone		
	Age (years olds)	Ratio	Percentage (%)	Age	Ratio	Percentage (%)
Age Generation	Youth (20 - 29)	281,714	28	Youth (20 - 29)	300	48
	Teenager (10 - 19)	250,202	25	Adult (30 - 39)	151	24
	Adult (30 - 39)	209,877	21	Old (40 - 49)	82	13
	Older (50 +)	155,852	15	Teenager (10 - 19)	71	11
	Old (40 - 49)	121,433	12	Older (50 +)	24	4
	Total	1,019,078	100	Total	628	100
Gender	Female	539,611	53	Male	336	54
	Male	479,467	47	Female	292	46
	Total	1,019,078	100		628	100

space.

Architecture is influenced by many forces that are human behavior, technology and beauty (Vitruvius Era). Architect really pays serious attention to the needs of the user, to the behavioral, social and cultural determinants of design, and to the role of good design in affecting human behavior<sup>5)</sup>. Architecture and related professions require informed, intelligent and sensitive designers - sensitive not only to buildings and facilities, but also to the people who will use them; sensitive not only to human behavior or any other single determinant of design, but to the interaction among technology, human behavior and beauty<sup>5)</sup>. So it can be said that a good public space design is one of problem solving for the rising complaint in mobile phone behavior in public space.

It means that an architect and urban designer in designing public space should considering for the different mobile phone features and physical elements of mobile phone physical behavior of every generation in public space.

### 9. Future Research

This paper is the preliminary study to going forward to the next analysis about mobile phone behavior in public environment. The researches are planned:

1. To perform comparison study between mobile phone physical and features behavior in public space in developed country such as Sendai, Japan and developing country such as Makassar, Indonesia based on generation.
2. To perform deep analysis about relation between mobile phone behaviors in public spaces with social network services (SNS) as the most growing feature today.
3. To perform the correlation study between socio-economic conditions of mobile phone users with mobile phone physical behavior in public space environment.

The next step is collecting new data and analyzing related to the future researches. Comparison methods will be used is statistical model.

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